

Utah Department of Transportation STRATEGIC DIRECTION & PERFORMANCE MEASURES

UDOT's Final Four

2008

There is a fundamental, undeniable link between transportation, quality of life and economic prosperity here in Utah. From the products we use in our daily lives, to the places we work, to the schools our children attend, to the areas where we recreate; we interact with our transportation system on a constant basis.

Recognizing the decisions we make today will have substantial impacts on generations to come, the Utah Department of Transportation is driven in all it does by a set of strategic goals and focus areas. Known as the “Final Four,” UDOT’s strategic goals provide guidance in the department’s efforts to improve the quality of life and economic vitality of the state.

Additionally, results of the department’s key performance indicators are presented in this document. These indicators will better identify those areas that may require additional attention, as well as those areas in which the department’s efforts have been successful.

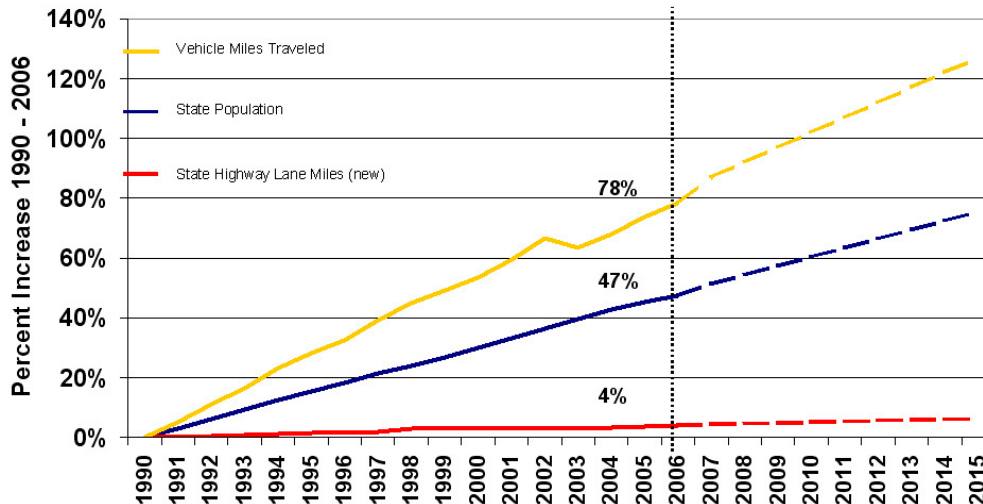
John Njord
UDOT Executive Director

The Challenge

The Challenge:

Over the last 17 years, Utah has enjoyed economic prosperity and growth. However, that prosperity and growth has created challenges for the transportation system.

**Utah Statewide Growth Trends
1990 - 2015**



Between 1990 and 2007 the state experienced a 47 percent increase in population. At the same time travel, measured by vehicle miles traveled (VMT) increased 71 percent. However, during that same timeframe, the state only added an additional 4 percent of capacity to the highway system.

Projections show the trend will continue.

By 2010, travel will have increased by a remarkable 99 percent, population by 61 percent and new capacity by a mere 5 percent.

This trend is not unique to Utah; VMT is drastically outpacing population growth in most of the country. However, Utah's population is growing much faster than most states. In fact, by the year 2050 more than 5 million people will call Utah home, making it the third fastest-growing state in the country.

The Solution:

The Department of Transportation faces the significant challenge of meeting the transportation needs of a growing state with limited resources. UDOT is addressing this challenge through its strategic goals, known as the "Final Four."

1. Take Care of What We Have
2. Make the System Work Better
3. Improve Safety
4. Increase Capacity

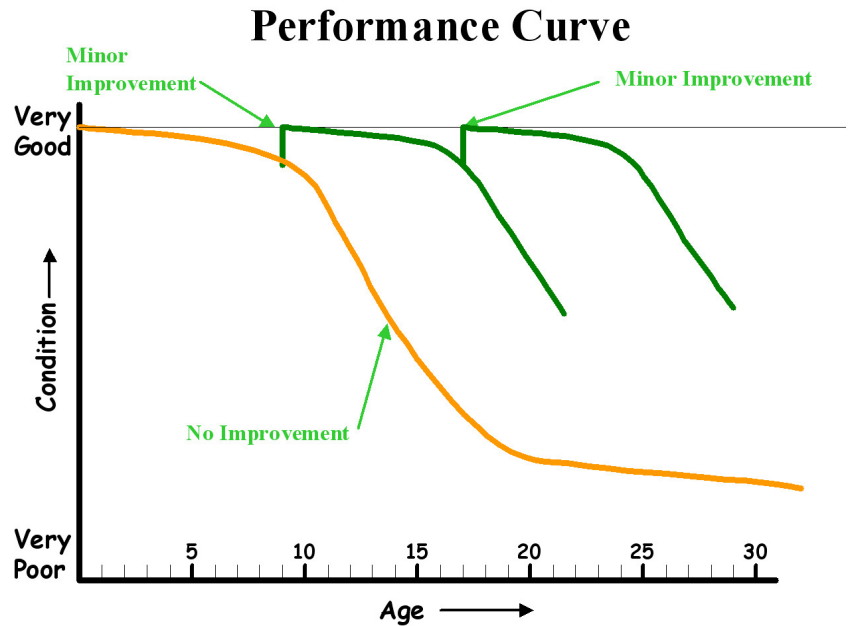
Transportation Needs

The Final Four

Take Care of What We Have

UDOT maintains nearly 6,000 miles of roadways across the state, an investment worth tens of billions of dollars. Increased travel is putting more and more pressure on the system, making preservation efforts even more critical.

The department and its employees are committed to the philosophy that "Good roads cost less." The graph to the right demonstrates how proactively applying well-timed treatments and other technologies to pavements can actually extend its lifetime. Similarly, routine inspections and maintenance activities on bridges are far more cost effective than replacing structures that are allowed to deteriorate.



Make the System Work Better

In the 21st Century, new technologies, new strategies, and design features will contribute as much to the efficiency of our transportation system as will new concrete and asphalt. The department is committed to implementing these technologies, strategies, and features in order to optimize the existing system.

Information is power, and the department strives to empower motorists to make wise travel decisions by delivering them the most accurate, up-to-date information about their routes.

Proactively managing the transportation system, through transportation demand strategies, traffic signal coordination, ramp meters and incident management teams will help to optimize the system. Express lanes, reversible lanes, carpool lanes, congestion pricing, and commute trip reduction are other system management techniques the department will explore in order to gain more capacity out of the existing system.



Express lanes are one of the tools UDOT uses to provide predictable travel times for motorists in Salt Lake and Utah Counties.

The Final Four

Strategic Goals

Improve Safety

The most important mission of the department is to safely deliver its customers from one point to another. Each year, almost 300 people lose their lives as the result of crashes on Utah's roadways.

By implementing innovative safety programs and identifying safety improvement locations, the department can reduce the number of traffic fatalities. Partnerships forged with law enforcement agencies and public education programs will also help to make Utah a safer place to live, travel, do business and recreate.

Increase Capacity

Traffic congestion is often cited as a top concern amongst residents in our state. Every minute spent delayed in traffic is a minute spent away from family, work or play.

Given the state's current increases in both travel and population, it is inevitable that capacity will have to be added to the existing system. However, financial constraints may prevent the department from building highways fast enough to fully address growing congestion problems.

With \$16.5 billion in unmet highway needs through the year 2030, the department will continue to explore alternative financing methods as a means of constructing projects in a much shorter time line.



New advanced warning signs have reduced incidents of red light running crashes by giving motorists earlier warning when signals turn red.



The Legacy Parkway project, scheduled to be complete in October 2008, will provide much needed traffic congestion relief for Davis County commuters.

Take Care of What We Have

Focus Areas and Results

Pavement Preservation: Much like changing the oil in your vehicle, proactive pavement treatments and maintenance will extend the lifetime of the roadway for a minimal investment. Such activities will cost far less than replacing pavements prematurely.

Performance Target: Using a scale that measures the roughness of pavement, UDOT will strive to maintain 90 percent of interstate pavements, 70 percent of arterial pavements and 50 percent of collector pavements in "fair or better" condition.

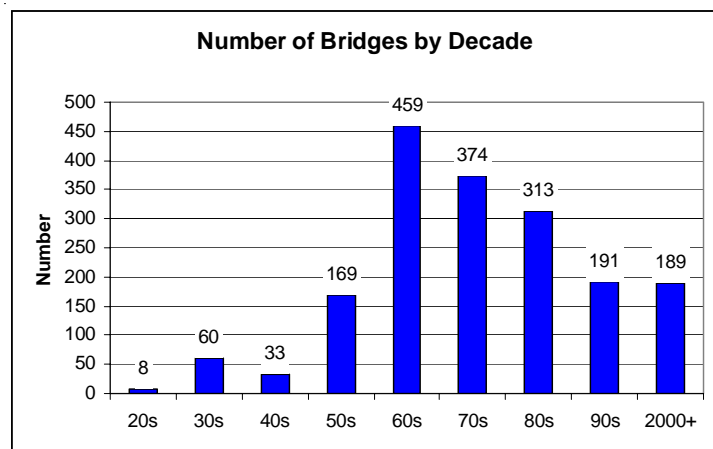
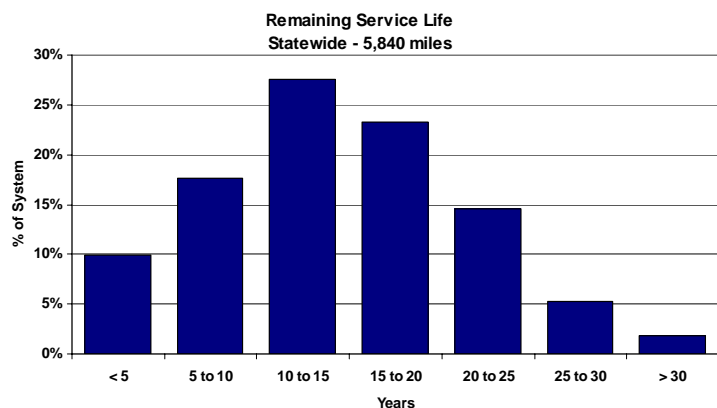
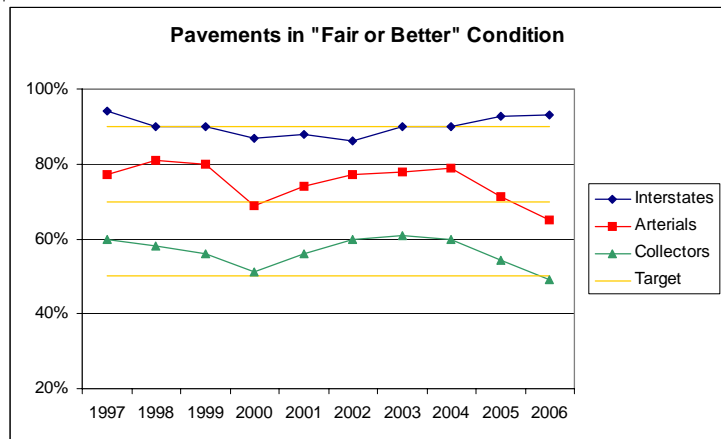
Results: In 2006, UDOT maintained 93 percent of interstate pavement, 65 percent of arterial pavement and 49 percent of the collector pavement in "fair or better" condition. For the first time in many years we fall below our targets for arterials and collectors. Additional emphasis must be placed on maintenance for these roads.

Remaining Service Life: The department monitors pavement conditions to estimate the time until it reaches a set level where it needs major rehabilitation or reconstruction. By using a long-term statewide pavement management strategy, we can apply a combination of routine maintenance, preventive maintenance, minor and major rehabilitation, and reconstruction projects to improve our pavement performance, extend the pavement life, and address structural deficiencies.

Bridge Preservation: One of UDOT's strategic goals is to manage the health, safety and investment of the States bridge system. UDOT inspects each of its 1815 bridges at least every two years. While the overall health of the bridge system is safe and within targeted values, UDOT does not have adequate funding to program projects for all of its worst bridges. In addition, a large percentage of Utah's bridge system was built during the creation of the original Interstate system, and are reaching the end of their expected life-span.

Performance Target: Using national bridge inspection standards, UDOT targets to have no more than 10 percent of its bridge system in a poor condition. UDOT also targets to have project funding or an action plan for each of its worst bridges.

Results: At the end of 2007, 89 of the 1815 bridges (5%) were in a poor condition. This is within UDOT's overall bridge health targets. However 45 of the 89 (51%) worst bridges currently do not have project funding. As a result additional funding is recommended for bridge programs.



Take Care of What We Have

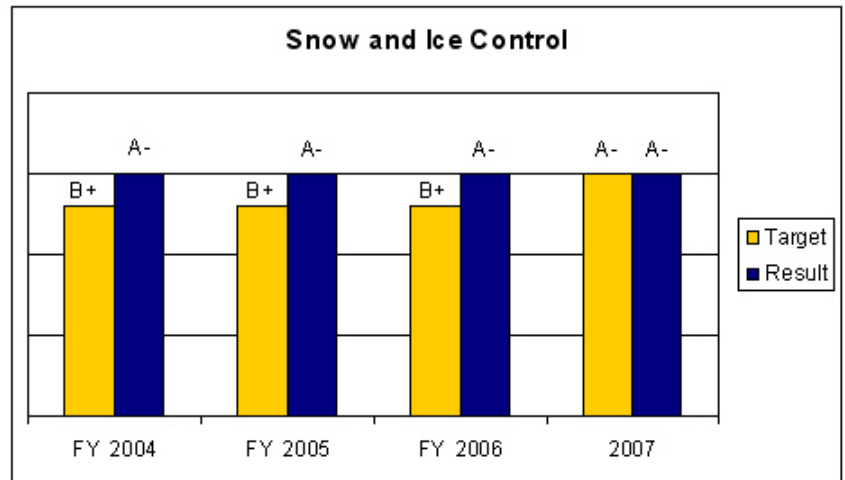
Focus Areas and Results

Snow & Ice Control: The department faces a significant challenge in keeping Utah's roads free of ice and snow during the winter months. Snow and ice removal is a critical task in order to ensure the safety of motorists and the health of the roadway. It costs about \$700,000 per storm to remove snow and ice from state highways.

Performance Target: UDOT's maintenance management system assigns a letter grade to the department's snow removal efforts.

The department's target grade is "A-." A grade of "A" represents clear, dry conditions. A grade of "B" represents snow or ice building up occasionally. A grade of "C" represents snow or ice building up regularly.

Results: For 2007, UDOT achieved a grade of "A-" for snow and ice control.



A team of snowplows work together to keep the Interstate 15 in Davis County clear of snow during a December storm.

Make the System Work Better

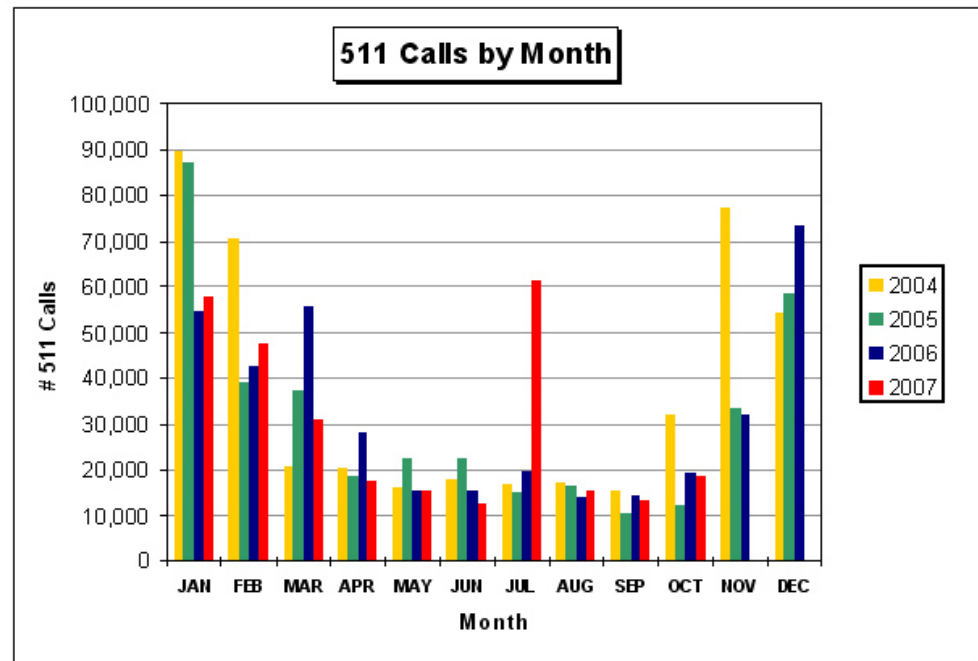
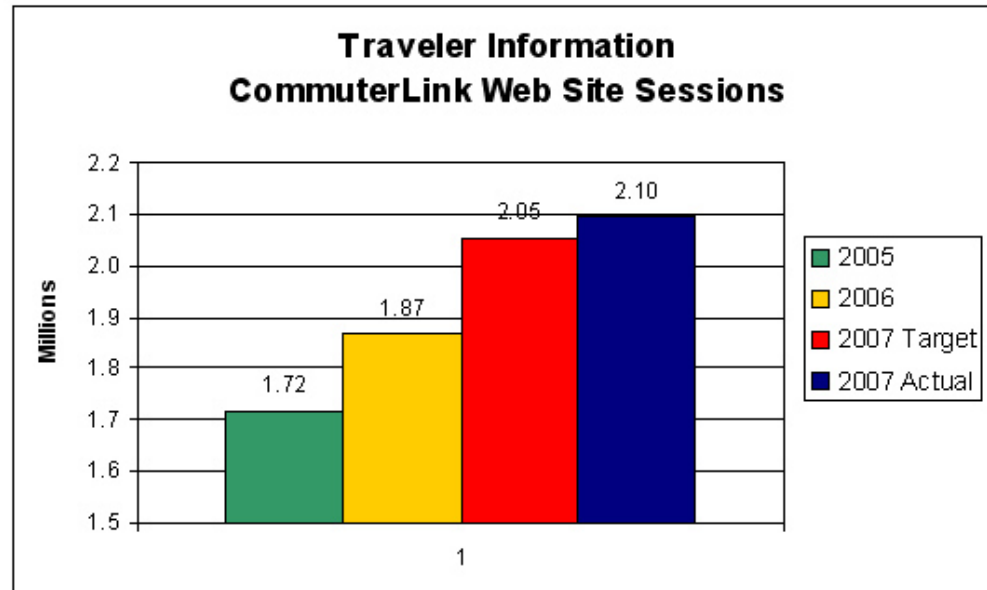
Focus Areas and Results

Traveler Information: Providing the public with real-time, accurate travel information through the 511 Travel Information Line and CommuterLink Web site will enable motorists to make well informed travel decisions. Such decisions can help reduce delay times and crashes, as well as improve air quality.

Performance

Target: Usage of Commuterlink and 511 will increase when the information provided is useful and timely. As a target, the department intends to increase Commuterlink web sessions by 10 percent per year. 511 calls rise significantly during incidents such as snowstorms, floods and fires, making a year over year target less meaningful. However, spikes in calls during times of need are an indication of the utility provided by the service. The department intends to continually improve the quality of its 511 service to better serve the traveling public.

Results: There were 2.10 million web sessions in 2007, a 12 percent increase over 2006. 511 call volume for 2007 equaled 2006. However, calls to 511 tripled in July '07 during the Milford Flat Fire. The graph shows this spike in calls, as well as others associated with large historical incidents.



Make the System Work Better

Focus Areas and Results

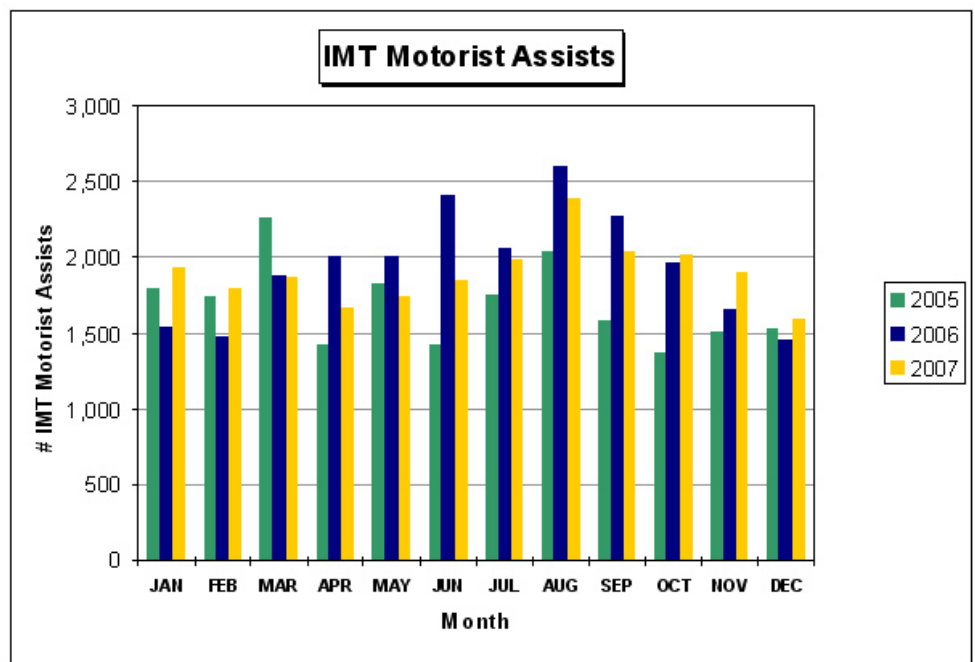
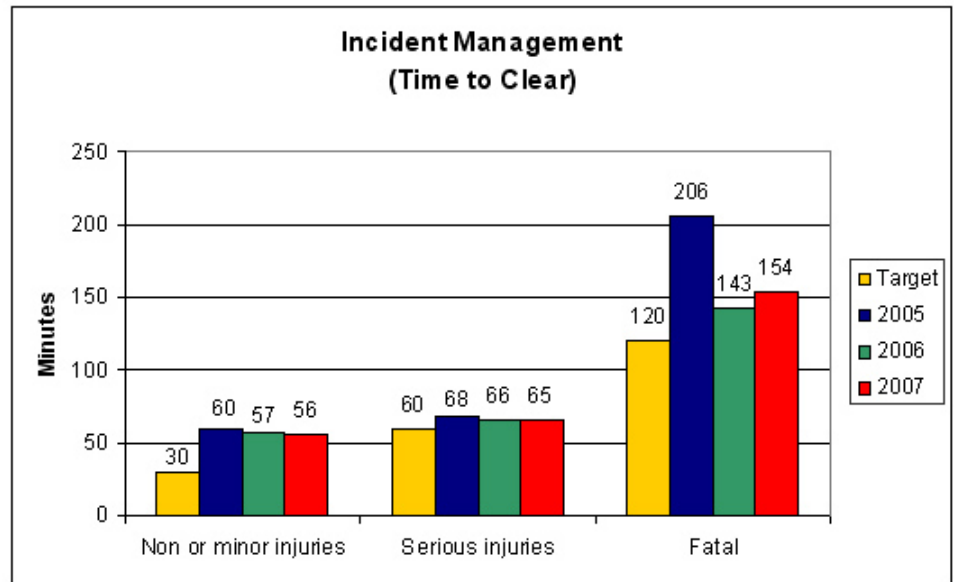
Incident Management:

Incidents that impede the free-flow of traffic (crashes, stalled vehicles, debris in the roadway) need to be removed from the travel lanes as quickly as possible. For every minute saved clearing an incident, five minutes of traffic back up is prevented and secondary crashes are minimized. The department's Incident Management Teams (IMTs) support the Utah Highway Patrol in clearing incidents and restoring traffic to free-flow conditions.

Performance Target: IMTs are committed to clearing non-injury and minor-injury incidents in 30 minutes or less, serious injury incidents in 60 minutes or less and incidents involving fatalities in less than 120 minutes.

Times are measured from when the incident is first reported to when all vehicles or debris are cleared from the scene.

Results: For 2007, non-injury and minor-injury crashes were cleared in 56 minutes, serious-injury incidents were cleared in 65 minutes and incidents involving fatalities were cleared in 154 minutes. Clearance of fatal crashes continues to have a significant impact on traffic flow.



Managed Lanes: The existing transportation system can also be optimized by how we choose to use it. Applications such as high-occupancy toll lanes, reversible lanes and carpool lanes are all designed to move more people within the existing system. The department is considering expanding the the current I-15 Express Lane into Davis County.

The Department is also working towards the I-15 Express Lane being an electronically tolled managed lane. This will enable occasional users to also benefit from the express service at reasonable costs.

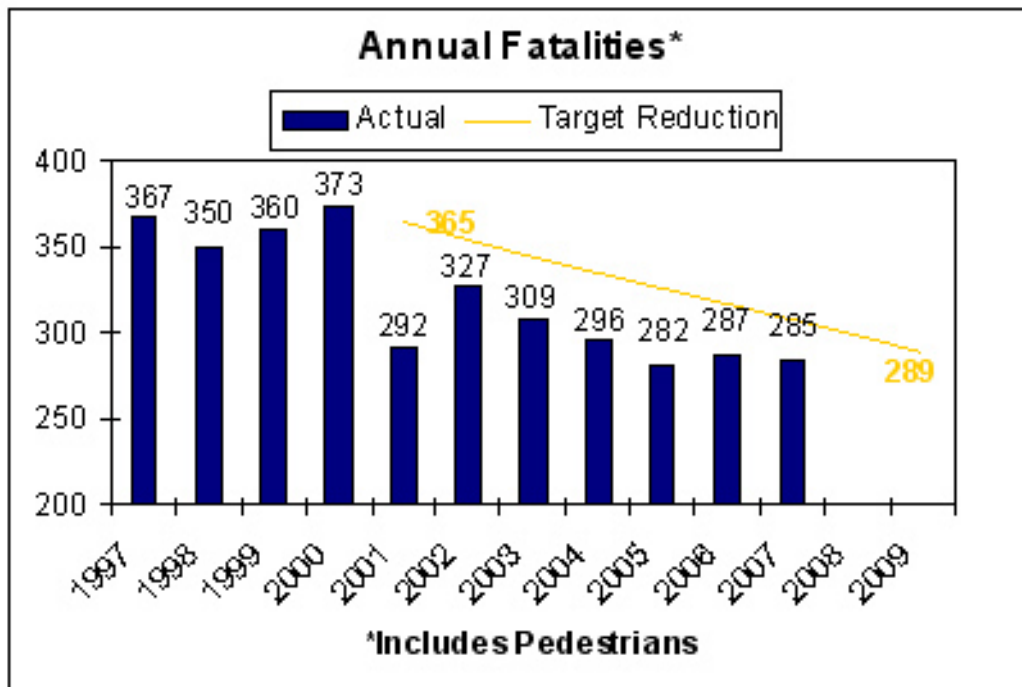
Improve Safety

Focus Areas and Results

Reduce Fatalities: Safety improvements made to the state highway system can help reduce the number of traffic related deaths.

Performance Target:
The department is committed to eliminating traffic-related fatalities on Utah highways by 2 percent each year. The target reduction is calculated from a baseline of 373 fatalities in the year 2000.

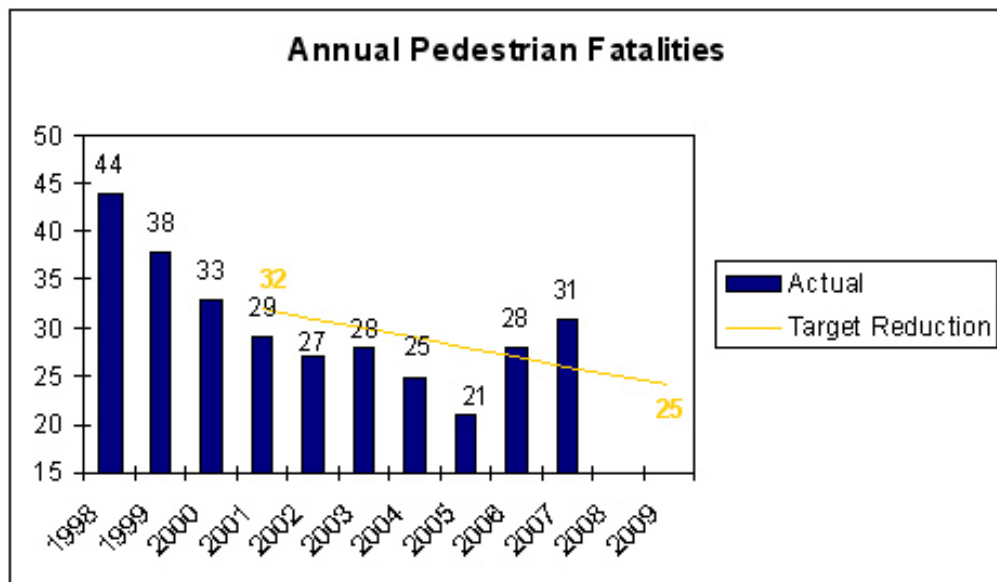
Results: In 2007, 285 people lost their lives from crashes on Utah roads, a decrease of two people from the previous year.



Reduce Pedestrian Fatalities: Through public awareness and education, school zone safety programs, trail enhancements and signal improvements, UDOT is ensuring and promoting safety for pedestrians and bicyclists.

Performance Target:
UDOT is committed to eliminating pedestrian fatalities by reducing the number of deaths by 2 percent each year. The target reduction is calculated from a baseline of 33 fatalities in the year 2000.

Results: In 2007, 31 pedestrians lost their lives, an increase of 10.7 percent from the previous year.



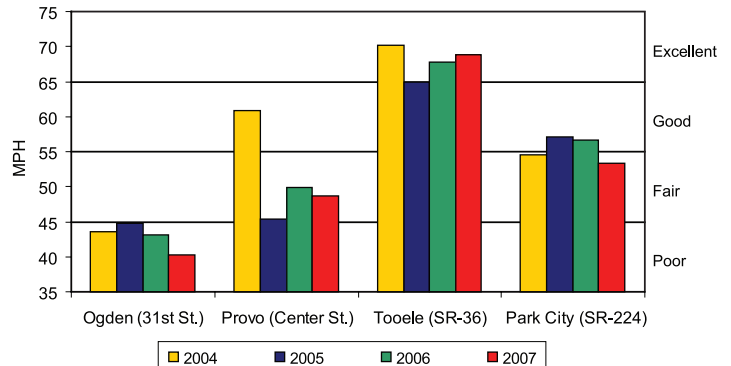
Increase Capacity

Focus Areas and Results

Mobility: Motorists measure mobility in one simple way: How long does it take to get to where I'm going? UDOT works to minimize travel times and congestion, even as population and travel continue to grow.

Performance Target: Monitoring average freeway commute speed during peak periods is one way to measure the health of the transportation system from a mobility standpoint. "Free flow" speeds are ideal, which are typically 65 mph and greater. When speeds fall much below 55 mph, congestion is present and mobility deteriorates. The department seeks to maintain average freeway commute speeds during peak periods above 55 mph.

Average Freeway Commute Speeds from Downtown SLC (PM Peak)



Results: The department monitors average freeway speeds on four key commutes to and from downtown Salt Lake City. 2007 measurements were:

- Ogden (AM): 41 mph (poor and decreasing)
- Ogden (PM): 40 mph (poor and decreasing)
- Provo (AM): 53 mph (good and decreasing)
- Provo (PM): 48 mph (fair and decreasing)
- Tooele (AM): 70 mph (excellent and stable)
- Tooele (PM): 69 mph (excellent and stable)
- Park City (AM): 59 mph (good and decreasing)
- Park City (PM): 53 mph (good and decreasing)

Add Lanes: It's inevitable that lanes will need to be added to the state's transportation system in order to accommodate demand. Over the past year, new capacity was added or is being added on the Legacy Parkway, I-15 in Weber County and U.S. 189 in Provo Canyon.

Corridor Preservation: With real estate prices climbing year-to-year in Utah, preserving future transportation corridors remains one sure way of saving the state financial resources. Spending a dollar now can save from \$4 to \$20 in the future.

Choke Points: UDOT has also undertaken relieving various choke points on the state highway system. It has completed more than a dozen such projects over the past two years and will tackle several more in 2008.



The 5600 West choke point project provided much needed relief to motorists in the West Jordan/West Valley area.

This document is available for download at
www.udot.utah.gov